

CLAIMS

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Q1
1. A process for purifying fluoromethyl 1,1,1,3,3,3-hexafluoroisopropyl ether, comprising:
causing fluoromethyl 1,1,1,3,3,3-hexafluoroisopropyl ether
5 containing less than about 1 % by weight of at least 1,1,1,3,3,3-hexafluoroisopropyl alcohol, to contact with a basic aqueous solution which contains a basic substance in an amount providing a chemical equivalent ratio of said basic substance to 1,1,1,3,3,3-hexafluoroisopropyl alcohol being within a range of not less than 1 so
10 as to obtain fluoromethyl 1,1,1,3,3,3-hexafluoroisopropyl ether which substantially does not contain 1,1,1,3,3,3-hexafluoroisopropyl alcohol.
2. A process as claimed in Claim 1, wherein said chemical
15 equivalent ratio is within a range of from 1 to 3.
3. A process as claimed in Claim 1, wherein the causing step
is carried out at a temperature ranging from 0 to 60 °C.
- 20 4. A process as claimed in Claim 1, wherein said basic substance is at least one selected from the group consisting of hydroxide, oxide and carbonate of metal.
5. A process as claimed in Claim 4, wherein said metal is at
25 least one selected from the group consisting of alkali metal and alkaline-earth metal.
6. A process as claimed in Claim 5, wherein said basic
30 substance is at least one selected from the group consisting of sodium hydroxide, sodium oxide, sodium carbonate, potassium hydroxide, potassium oxide, potassium carbonate, lithium hydroxide, lithium oxide, lithium carbonate, rubidium hydroxide, rubidium
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Q2

Article 19 Amended Claims to be Examined

oxide, rubidium carbonate, cesium hydroxide, magnesium hydroxide, calcium hydroxide, strontium hydroxide, and barium hydroxide.

7. A process as claimed in Claim 1, wherein said basic
5 aqueous solution of said basic substance has a concentration ranging from 0.001 to 20 % by weight.

8. A process for purifying fluoromethyl 1,1,1,3,3,3-hexafluoroisopropyl ether, comprising:
10 providing fluoromethyl 1,1,1,3,3,3-hexafluoroisopropyl ether containing less than about 1 % by weight of at least 1,1,1,3,3,3-hexafluoroisopropyl alcohol, and a basic aqueous solution which contains a basic substance in an amount providing a chemical equivalent ratio of said basic substance to 1,1,1,3,3,3-hexafluoroisopropyl alcohol being within a range of not less than 1;
15 and

causing said fluoromethyl 1,1,1,3,3,3-hexafluoroisopropyl ether containing 1,1,1,3,3,3-hexafluoroisopropyl alcohol, to contact with said basic aqueous solution containing said basic substance so
20 as to obtain fluoromethyl 1,1,1,3,3,3-hexafluoroisopropyl ether which substantially does not contain 1,1,1,3,3,3-hexafluoroisopropyl alcohol.

9. A process for purifying fluoromethyl 1,1,1,3,3,3-hexafluoroisopropyl ether, comprising:
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providing fluoromethyl 1,1,1,3,3,3-hexafluoroisopropyl ether containing less than about 1 % by weight of at least 1,1,1,3,3,3-hexafluoroisopropyl alcohol, and a basic aqueous solution which contains a basic substance in an amount providing a chemical
30 equivalent ratio of the basic substance to 1,1,1,3,3,3-hexafluoroisopropyl alcohol being within a range of not less than 1;

forming a reaction system in which inorganic acid radical is substantially absent; and

causing said fluoromethyl 1,1,1,3,3,3-hexafluoroisopropyl ether containing 1,1,1,3,3,3-hexafluoroisopropyl alcohol, to contact with said basic aqueous solution containing said basic substance so as to obtain fluoromethyl 1,1,1,3,3,3-hexafluoroisopropyl ether which substantially does not contain 1,1,1,3,3,3-hexafluoroisopropyl alcohol.

10. A process for purifying fluoromethyl 1,1,1,3,3,3-hexafluoroisopropyl ether, comprising:
10 causing fluoromethyl 1,1,1,3,3,3-hexafluoroisopropyl ether containing less than about 1 % by weight of at least 1,1,1,3,3,3-hexafluoroisopropyl alcohol, to contact with basic aqueous solution containing a basic substance, in a reaction system in which inorganic acid radical is substantially absent so as to obtain fluoromethyl
15 1,1,1,3,3,3-hexafluoroisopropyl ether which substantially does not contain 1,1,1,3,3,3-hexafluoroisopropyl alcohol.

11. A process for purifying fluoromethyl 1,1,1,3,3,3-hexafluoroisopropyl ether, comprising:
20 forming a reaction system in which inorganic acid radical is substantially absent; and
causing fluoromethyl 1,1,1,3,3,3-hexafluoroisopropyl ether containing less than about 1 % by weight of at least 1,1,1,3,3,3-hexafluoroisopropyl alcohol, to contact with a basic aqueous solution
25 containing a basic substance, in said reaction system so as to obtain fluoromethyl 1,1,1,3,3,3-hexafluoroisopropyl ether which substantially does not contain 1,1,1,3,3,3-hexafluoroisopropyl alcohol.

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